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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,627

06/10/2005

Bernardus Hendrikus Wilhelmus Hendriks

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01/08/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

RICHARDSON, CHRISTOPHER J

ART UNIT

PAPER NUMBER

4178

MAIL DATE

DELIVERY MODE

01/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/538,627	Applicant(s) HENDRIKS ET AL.	
	Examiner Christopher J. Richardson	Art Unit 4178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 5,6,8,9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims will be treated as depending upon Claim 1 only.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 4, 9, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hendriks (WO 02/086876).

Regarding Claim 1, Hendriks teaches an optical lens set (abstract) comprising:

a) a first lens set element (Fig 3A element 45) having a first optical axis (Fig 3A element 79) and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, wherein said first lens set element is of a first width in a direction perpendicular to said first optical axis; and

b) a second lens set element (Fig 3A element 63) having a second optical axis (Fig 3A element 71) and including a second lens having a second curved lens surface having a second entrance pupil (Fig 3A element 47) with a different, second diameter which is smaller than said first diameter (Fig 3A; picture clearly shows that second diameter which is smaller than said first diameter), said second lens set element having an inner part (Fig 3A element 47) and an outer part (Fig 3A element 61) arranged in a direction perpendicular to said second optical axis, said inner part including said second lens (Fig 1 element 47), wherein said first and second lens set elements are adapted to form a lens assembly including said first and second lenses (Fig 3A element 39),

characterized in that said outer part extends to a second width in a direction perpendicular to said second optical axis, which second width is greater than said first width (Fig 3A; second width is width of element 61 and first width is width of lens 45).

Regarding Claim 2, Hendriks teaches wherein the thickness of said first lens along said first optical axis is greater than the thickness of said second lens along said second optical axis (Fig 3A elements 45 and 47).

Note: Hendricks reads on the limitation wherein the thickness of said first lens along said first optical axis is greater than the thickness of said second lens along said second optical axis as Fig 3A clearly shows that the thickness of said first lens (element 45) is greater than the thickness of said second lens (element 47).

Regarding Claim 4, Hendriks teaches wherein said first width is the maximum width of said first lens set element perpendicular to said first optical axis and said second width is the maximum width of said second lens set element perpendicular to said second optical axis (Fig 3A).

Note: Hendricks reads on the limitation wherein said first width is the maximum width of said first lens set element perpendicular to said first optical axis and said second width is the maximum width of said second lens set element perpendicular to said second optical axis as the first width of element 45 in Fig 3A is distance across the entire lens apparatus, which is the maximum width. The second is of element 61 in Fig 3A, which is the maximum width.

Regarding Claim 5, Hendricks teaches wherein said first or second set element has a protrusion (Fig 3A element 61) which is shaped to interfit with a surface of said second or first set element, respectively (Fig 3A elements 61 and 45 interfit together).

Regarding Claim 9, Hendricks teaches an optical lens assembly comprising an optical lens set, wherein said first and second lens set elements are mutually attached (Fig 3A element 39).

Regarding Claim 10, Hendricks teaches an optical scanning device for scanning optical record carriers, the device including an optical lens assembly (abstract).

Regarding Claim 11, Hendricks teaches a method of assembling an optical lens set (abstract) comprising:

- a) providing a first lens set element (Fig 3A element 45) having a first optical axis (Fig 3A element 79) and including a first lens having a first curved lens surface having a first entrance pupil with a first diameter, wherein said first lens set element is of a first width in a direction perpendicular to said first optical axis;

- b) providing a second lens set element (Fig 3A element 63) having a second optical axis (Fig 3A element 71) and including a second lens having a curved lens surface having a second entrance pupil (Fig 3A element 47) with a different, second diameter which is smaller than said first diameter (Fig 3A; picture clearly shows that second diameter which is smaller than said first diameter), wherein said second lens set element has an inner part (Fig 3A element 47) and an outer part (Fig 3A element 61) arranged in a direction perpendicular to said second optical axis, said inner part including said second lens (Fig 1 element 47); and

c) attaching said first lens set element to said second lens set element by bonding an attachment surface of said first lens set element to an attachment surface of said second lens set element so that said first and second optical axes are aligned with each other (Fig 3A element 39),

characterized in that said outer part extends to a second width in a direction perpendicular to said second optical axis, which second width is greater than said first width (Fig 3A; second width is width of element 61 and first width is width of lens 45).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendriks (WO 02/086876).

Regarding Claim 3, Hendricks teaches an optical lens set according to claim 1.

Hendricks is silent wherein a ratio of the thickness of said second lens along said second optical axis divided by said second diameter is at least 0.5, although Fig 3A does appear to disclose the second lens having a ratio of the thickness of said second lens along said second optical axis divided by said second diameter is at least 0.5.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to design the second lens so that the ratio of the thickness of said

second lens along said second optical axis divided by said second diameter is at least 0.5 as it is well-known that if this is ratio was small, meaning the lens had a small thickness, that the lens would be very brittle and prone to becoming damaged and/or broken.

Regarding Claim 4, Hendricks further teaches wherein said first width is the maximum width of said first lens set element perpendicular to said first optical axis and said second width is the maximum width of said second lens set element perpendicular to said second optical axis (Fig 3A).

Note: Hendricks reads on the limitation wherein said first width is the maximum width of said first lens set element perpendicular to said first optical axis and said second width is the maximum width of said second lens set element perpendicular to said second optical axis as the first width of element 45 in Fig 3A is distance across the entire lens apparatus, which is the maximum width. The second is of element 61 in Fig 3A, which is the maximum width.

8. Claims 6,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendriks (WO 02/086876) in view of Kishima (US 2002/0036839).

Regarding Claim 6, Hendricks teaches an optical lens set according to claim 1.

Hendricks does not teach wherein said outer part includes a removable part arranged to be removed during an assembly process.

Kishima does teach wherein said outer part includes a removable part arranged to be removed during an assembly process (transformation from Fig 5A to 5B).

Note: Kishima reads on the limitation wherein said outer part includes a removable part arranged to be removed during an assembly process as Kishima shows the transformation of element 34, which is used to create the second lens set. The transformation shows the etching out of element 34 to create both the inner part (element 31) and the outer part (everything left and right of element 31) and in etching element 34 out, some of the outer part is removed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hendricks in view of Kishima for the purpose of reducing the overall size of the optical lens system.

Regarding Claim 7, Kishima further teaches wherein said outer part comprises an area of reduced thickness in a direction parallel to said second optical axis (thickness at element 32 of Fig 5B), and wherein said removable part is detachable by severing said outer part in said area of reduced thickness (the etching that occurs from Fig 5A to 5B).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendriks (WO 02/086876) in view of Yamada (US 6,974,939).

Regarding Claim 8, Hendricks teaches an optical lens set according to claim 1, wherein said inner part is attachable to said first optical element to form a lens stack (Fig 3A elements 47 and 75).

Hendricks does not teach wherein the thickness of said outer part in a direction parallel to said second optical axis is greater than the maximum thickness of said lens stack when so formed.

Yamada does teach wherein the thickness of said outer part in a direction parallel to said second optical axis (Fig 2 element 8, thickness in vertical direction) is greater than the maximum thickness of said lens stack when so formed (Fig 2, vertical distance from flat end of element 5 to curved end of element 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hendricks in view of Yamada for the purpose of having a more stable optical lens system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher J. Richardson whose telephone number is 571-270-3439. The examiner can normally be reached on M-F, alternate Fridays off, 7:30-5:00 est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on 571-272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4178

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.J.R.
12/13/2007

/Hai Tran/
Supervisory Patent Examiner, Art Unit 4178